A16 (cont'd)

are different than the drop volumes deposited on another receiver medium of a second receiver media type by the nozzle and further wherein job input signals are received corresponding to a selected one of plural recording resolutions, a selected one of plural receiver media types and a selected one of plural inks for processing the job and in response to the job inputs a code value is generated from a plurality of selectable code values, the number of selectable code values being substantially less than the number of combinations of plural recording resolutions, plural receiver media types and plural inks possible for selection for the job, the code value being used to identify a table of values associated with drop volumes used for printing.

REMARKS

By this amendment, Claims 1-36 and 38-46 are in the application. Reconsideration of the patentability of the application is respectfully requested. Applicants gratefully acknowledge the indication of allowable subject matter in the application.

Amendments have been made to the specification as requested by the Examiner. In addition, proposed drawing amendments are provided showing in red amendments to the drawings to Fig. 5 to correct matters noted by the Examiner.

Claim 1 has been amended to define an ink jet printer apparatus that includes a controller responsive to image data representing the image and to a first signal related to receiver media type and to a second signal related to ink type and to a third signal related to printing resolution for generating the fourth signal required to determine drop volume for recording the image data at a pixel location. It is respectfully submitted that claim 1 now defines a printer apparatus that is novel and unobvious over the prior art cited by the Examiner. The Asano reference has been considered; however, there is no description in this reference of the at least three factors referred to above that are employed to define a drop volume. Asano teaches the use of adjustment of drop volume tables in accordance with receiver media type.

Claim 10 has been rewritten in independent form and was indicated to contain allowable subject matter by the Examiner. It is submitted, therefore, that claim 10 should now be allowed.

Claim 14 has also been rewritten in independent form and was indicated to contain allowable subject matter by the Examiner. It is submitted that claim 14 should also now be allowed.

Claim 15 is directed to a method of operating an ink jet printer apparatus for printing an image on a receiver medium. The method includes the steps of generating a first signal related to one of plural receiver media types, a second signal related to one of plural types of ink selectable for recording the image data and a third signal related to one of plural printer resolutions selectable for recording the image data. It is respectfully submitted that the prior art fails to teach a method with this combination of features also.

Claim 27 has also been rewritten in independent form and was indicated to contain allowable subject matter by the Examiner. It is submitted that claim 27 should also now be allowed.

Claims 30 and 33 have also been rewritten in independent form and were indicated to contain allowable subject matter by the Examiner. It is respectfully submitted that these claims should also be allowed as well.

Claim 36 has now been amended to include the subject matter of claim 37 which was indicated to contain allowable subject matter. It is submitted that claim 36 should now be allowed, and the Examiner will note that claim 37 has been cancelled.

Claims 41 and 42 were indicated to be allowed. It is submitted that the clarifying amendments made thereto should not affect the allowability of these two claims.

New claims 43 and 44 are directed to an ink jet printer apparatus that features a communication channel for receiving inputs for job of a selected one of plural recording resolutions, a selected one of plural receiver media types and optionally a selected one of plural inks for processing the job. The controller, in response to such job inputs, is adapted to generate a third signal representing a first code value from a table of plural number of selectable code values, the number of selectable code values being substantially less than the number of combinations of plural recording resolutions, plural receiver media types and optionally plural inks for selection for the job. This feature has been indicated to be allowable by the Examiner in the other claims and it is submitted that in the context of apparatus claims 43 and 44 it is also patentable.

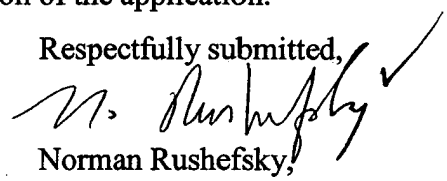
New independent claim 45 is directed to a method of processing image data for a print job wherein there is recited the step of receiving inputs for the job of the selected one of plural recording resolutions, a selected one of plural receiver media types and a selected one of plural inks for use in printing the job. In response to the

inputs there is the step of generating a code value from a table of plural number of selectable code values, the number of selectable code values being substantially less than the number of combinations of plural recording resolutions, plural receiver media types and plural inks possible for selection for the job. It is submitted that the Examiner will find this claim allowable in view of its many similarities to claim 41.

New independent claim 46 is a method claim having some of the patentable features of new independent claim 45 and should also be allowable.

It is submitted that in view of the above amendments that the application is now in condition for allowance, prompt notice of which is earnestly solicited. If, contrary to expectations, questions shall remain the Examiner is invited to call the undersigned in order to advance prosecution of the application.

Respectfully submitted,



Norman Rushefsky,
Registration No. 25,606

Telephone: (585) 588-4529
Facsimile (585) 477-4646

"Version with Markings to Show Changes Made"

IN THE SPECIFICATION:

Please substitute the following paragraph for the pending paragraph beginning on Page 1, line 7.

--1. U.S. application Serial Number 09/939,936 filed in the name of Rodney L. Miller et al. and entitled "[AN] INK JET PRINTER WITH IMPROVED DRY TIME" and now U.S. Patent 6,464,330; and--

Please substitute the following paragraph for the pending paragraph beginning on Page 1, line 10.

--2. U.S. application Serial Number 09/940,224 [Docket 83,254] filed in the name of James Newkirk et al. and entitled "METHOD AND APPARATUS FOR INCREASING NUMBER OF AVAILABLE PRINTING GRADATIONS ON AN INK JET PRINTER".—

Please substitute the following paragraph for the pending paragraph beginning on page 7, line 3.

--Printheads are also known with one or two parallel rows of nozzles that are not staggered thus allowing printing of at least certain pixels using drops output by two nozzles in succession (see in this regard [to] Figure 5 which shows a printhead 22 with two rows of non-staggered nozzles 21).--

Please substitute the following paragraph for the pending paragraph beginning on Page 7, line 20.

--A typical ink jet printer reproduces an image by ejecting small drops of ink from a print head containing an array of spaced apart nozzles, or the ink drops land on a receiver medium (typically paper) to form round ink dots. In some printers, all drops are the same size, and therefore, all dots are the same size. Normally, these drops are deposited with their respective dot centers on a rectilinear grid, a raster, with equal spacing,p, in the horizontal and vertical directions (see Figure 3). Therefore, to achieve full coverage of the ink it is necessary for the dots[, 10,] to have at least diameter p*sqrt(2).- -

Please substitute the following paragraph for the pending paragraph beginning on Page 7, line 28 to page 8, line 20.

--Modern ink jet printers may also possess the ability to vary (over some range) the amount of ink that is deposited at a given location on the page. Ink jet printers with this capability are referred to as "multitone" or gray scale or "multidrop capable" ink jet printers because they can produce multiple density tones at each pixel location on the page. Some multitone ink jet printers achieve this by varying the volume of the ink drop produced by the nozzle by changing the electrical signals sent to the nozzle by varying the diameter of the nozzle. See for example U.S. patent No. 4,746,935. Other multitone ink jet printers produce a variable number of smaller, fixed size droplets that are ejected by the nozzle (or by plural nozzles during different passes of the nozzle array), all of which are intended to merge and land at the same pixel location on the page. See for example U.S. patent No. 5,416612. These techniques allow the [printed] printhead to vary the size or optical density of a given ink dot, which produces a range of density levels at each dot location, thereby improving the image quality. Thus printing methods that require multiple drops sizes usually depend upon the way the drops are generated by the print head. As noted above some printheads have multiple size nozzle diameters, others have circuitry in which the individual ink chambers accept changing electrical signals to instruct each chamber how much ink to eject. Still other printheads have nozzles that ejecting variable number of small, fixed size droplets that are intended to merge then land in a given image pixel location. Printing methods that deposit more than one drop in the pixel location are typically carried out by multiple printing passes wherein the printhead prints a row of pixels multiple times, the image data to the printhead changing in accordance with each pass so that the correct number of total droplets deposited at any pixel location is commensurate with the density required by the processed image data.--

Please substitute the following paragraph for the pending paragraph beginning on Page 10, line 29.

--Referring now to Figure 5A, an ink jet printer system is shown in which a controller, 130, controls a printhead, 140, a print head controller and driver, 150, and a print media controller and driver, 160. The controller 130, which may

include one or more microcomputers suitably programmed, provides signals to the printhead controller and driver 160 that directs the print head driver to move the print head in the fast scan direction. While the print head is moving in the fast scan direction, the controller directs the print head to eject ink drops onto the print medium at appropriate pixel locations for the reference raster when pixels on the reference raster are being printed. In a subsequent pass the controller, while the printhead is moving in the fast scan direction, directs the printhead to eject ink drops onto the print medium at appropriate pixel locations of the shifted raster when pixels on the shifted raster are being printed. During a single pass printing is only made on one of the rasters, reference or shifted, but not both. Suitable signals are provided to the print head from the print head controller so as to print the image data at the appropriate pixel locations on the receiver sheet. After a print pass, the controller media controller directs the print media drive 170 to move the print medium in the slow scan direction. Signals output from the print head controller are responsive to data signals input thereto from a suitable electronic data source that provides a data file of an image to be printed.- -

The paragraph beginning on Page 11, line 20, has been amended as follows:

--Shown in Figure 6 is an arrangement of drops which illustrate one feature of the invention. For the cluster the arrangement is a three by two cluster of large drops (drops 1-6) placed on the reference raster, and a small drop (drop "a") placed on the shifted raster. In a preferred embodiment, the large drops are not large enough to achieve full coverage and a gap remains in the center of the cluster. However, a single small drop is large enough to cover the gap. This arrangement of drops not only achieves full coverage but also does so with a lower volume of ink per unit pixel. The position of the small drop "b" is used to illustrate the position of the shifted raster relative to the reference raster.--

The paragraph beginning on Page 12, line 16, has been amended as follows:

Referring again to Fig. 7, the image signal i is converted to a printhead image signal o by the swath extractor processor [and] 182. [of a reference printhead

signal] The processor 182 includes a pass table 183 which is a two dimensional look-up table that contains values of a reference printhead signal as a function of density [leveling] level and pass number which is kept track of by pass table processor 184. The data values contained in the pass table 183 may be in a variety of different formats such as will be explained below. For example, the electronic circuitry that activates the print head may be designed to accept ink drop volumes in picoliters. Thus, the electronic circuitry 185 that activates the print head would convert the print head image signal o, which would contain desired ink drop volumes, into electrical signals that instruct the print head to produce the desired volumes to form dots of the desired size or optical density. It is important to note that the format of the data values in the pass table 183 is not fundamental to the invention, and the invention may be applied to create a printer image signal o for any particular print head by using the appropriate data values in the pass tables 183.

IN THE CLAIMS

Claim 37 has been cancelled.

The following claims have been amended:

1.(Once Amended) An ink jet printer apparatus for printing an image on a receiver medium comprising:

at least one nozzle connected to a supply of ink;

a controller, responsive to image data representing the image and to a first signal related to receiver media type and to a second signal related to ink type and to a third signal related to printing resolution, for generating a [second] fourth signal for determining for said nozzle an ink drop volume to be deposited at each of plural pixel locations on the receiver medium by that nozzle [including a decision of no drop to be deposited at some of the pixel locations], at least some of the [second] fourth signals determining at least three different drop volumes including a no drop decision, the controller generating a table of drop volume related values for printing the image data in response to the first signal, the second signal and the third signal, with different table values being provided for different combinations of receiver media types, ink types and printer resolutions;

an actuator associated with said nozzle and responsive to said [second] fourth signal for controlling said nozzle to deposit at a respective pixel location a respective drop volume to be deposited in accordance with said [second] fourth signal so that the printer prints at least three different drop volumes including no drops at different pixel locations on the receiver medium to print the image on the receiver medium.

2. (Once Amended) The ink jet printer apparatus of claim 1 and wherein a carrier supports the at least one nozzle for movement relative to the receiver medium so that the nozzle is moved across the receiver medium with plural recording passes to record an image swath of pixels on a reference raster during each such recording pass and the controller is adapted to provide [second] fourth signals to the actuators regarding drop volumes to be deposited on the reference raster for that image swath during each respective recording pass of the plural recording passes.

3.(Once Amended) The ink jet printer apparatus of claim 2 and wherein the controller includes a pass table that stores drop volume related values, and in response to image data in the form of a multitone pixel value signal the controller generates a [third] fifth signal related to the drop volume related value.

4. (Once Amended) The ink jet printer apparatus of claim 3 and wherein the [third] fifth signal represents an index value associated with a respective drop volume.

5. (Once Amended) The ink jet printer apparatus of claim 4 and wherein the controller includes a print masking table that stores decision values for determining whether or not a drop is to be deposited by each nozzle at a respective pixel location on the reference raster during a respective recording pass and the controller is responsive to the [third] fifth signal and to a respective decision value in the print masking table to generate the [second] fourth signal for controlling the actuator to determine drop volume to be deposited at the pixel location by the nozzle during the respective recording pass.

6.(Once Amended) The ink jet printer apparatus of claim 5 and wherein the apparatus includes a communication channel for receiving inputs for a job of a

selected one of plural recording resolutions, a selected one of plural receiver media types and [optionally] a selected one of plural inks for processing the job and the controller, in response to such job inputs, generates a [fourth] sixth signal representing a first code value from a table of plural number of selectable code values, the number of selectable code values being substantially less than the number of combinations of plural recording resolutions, plural receiver media types and [optionally] plural inks possible for selection for the job and the apparatus further includes either the same communication channel or a separate communication channel for receiving inputs of a [fifth] seventh signal representing said selected one of plural recording resolutions, a selected one of plural bits per pixel, a selected number of band passes to be used to print the image swath on the reference raster and optionally a selected number of directions in which printing is to occur and in response to the [fourth] sixth and [fifth] seventh signals generates table values for the pass table.

7.(Once Amended) The ink jet printer apparatus of claim 6 and wherein the controller includes a drop volume table that is responsive to application of a decision based on a decision value in the print masking table for generating the [second] fourth signals representing an ink drop volume for recording on the receiver medium in a respective pass.

9.(Once Amended) The ink jet printer apparatus of claim 8 and wherein values in the shifted raster pass table and reference raster pass tables are adapted to be changed in response to changes in the [fourth] sixth signals representing a change of one of recording resolution or receiver media type.

10.(Once Amended). An ink jet printer apparatus for printing an image on a receiver medium comprising:

at least one nozzle connected to a supply of ink;

a carrier for supporting the at least one nozzle for movement relative to the receiver medium so that the nozzle is moved across the receiver medium with plural recording passes to record an image swath of pixels;

a controller, responsive to image data representing the image and to a first signal related to receiver media type, for generating a second signal for determining for said nozzle an ink drop volume to be deposited at each of plural pixel

locations on the receiver medium by that nozzle, at least some of the second signals determining at least three different drop volumes including a no drop decision;

an actuator associated with said nozzle and responsive to said second signal for controlling said nozzle to deposit at a respective pixel location a respective drop volume to be deposited in accordance with said second signal so that the printer prints at least three different drop volumes including no drops at different pixel locations on the receiver medium to print the image on the receiver medium;

[The ink jet printer apparatus of claim 2] and wherein the controller includes a pass table of drop volume related values for printing on the reference raster and a different pass table of drop volume related values for printing on a shifted raster, and wherein the shifted raster represents, for a predetermined printing resolution, a grid pattern of possible pixel locations on the recording medium that are shifted relative to each pixel location on the reference raster by an amount less than the spacing between adjacent pixel locations on the reference raster in the pass direction and by an amount less than the spacing between adjacent pixel locations on the reference raster in a transverse direction to the pass direction, and wherein during a pass the controller is adapted to control [controls] the nozzles to print pixels either on the reference raster or the shifted raster but not both during any particular pass.

14. (Once Amended) An ink jet printer apparatus for printing an image on a receiver medium comprising:

at least one nozzle connected to a supply of ink;

a carrier for supporting the at least one nozzle for movement relative to the receiver medium so that the nozzle is moved across the receiver medium with plural recording passes to record an image swath of pixels;

a controller, responsive to image data representing the image and to a first signal related to receiver media type, for generating a second signal for determining for said nozzle an ink drop volume to be deposited at each of plural pixel locations on the receiver medium by that nozzle, at least some of the second signals determining at least three different drop volumes including a no drop decision;

an actuator associated with said nozzle and responsive to said second signal for controlling said nozzle to deposit at a respective pixel location a respective drop volume to be deposited in accordance with said second signal so that the printer prints at least three different drop volumes including no drops at different pixel

locations on the receiver medium to print the image on the receiver medium [The ink jet printer apparatus of claim 1] and wherein there are plural of said nozzles and the controller includes a table of drop volume related values for printing on a reference raster and a different table of drop volume related values for printing on a shifted raster, and wherein the shifted raster represents, for a predetermined printing resolution, a grid pattern of possible pixel locations on the receiver medium that are shifted relative to each pixel location on the reference raster by an amount less than the spacing between adjacent pixel locations on the reference raster in the first direction and by an amount less than the spacing between adjacent pixel locations on the reference raster in a transverse direction to the first direction, and wherein, during a pass movement of the nozzles relative to the medium in a predetermined direction, the controller controls the nozzles to print pixels either on the reference raster or the shifted raster but not both during any particular pass.

15.(Once Amended) A method of operating an ink jet printer apparatus for printing an image on a receiver medium, the method comprising:

providing a print head having at least one nozzle;

generating a first signal related to one of plural receiver media types [being recorded by of the receiver medium] selectable for recording the image data, a second signal related to one of plural types of inks selectable for recording the image data and a third signal related to one of plural printer resolutions selectable for recording the image data;

recording image data of [an] the image by depositing at least three different ink drop volumes including no ink drop on the receiver medium at different pixel locations to form dots of different dot size or dot density at different pixel locations; and

wherein in recording image data of a same multitone image data value on different receiver media types, in response to the first signal related to receiver media type and the second signal related to the type of ink and the third signal related to printer resolution for recording the image data, the drop volumes deposited on one receiver medium of one receiver media type by the nozzle are different than the drop volumes deposited on another receiver medium of a second receiver media type by the nozzle and wherein receiver media type and ink type and printer resolution are used in determining drop volumes used in recording, with different table values being

provided for different combinations of receiver media types, ink types and printer resolutions;

16.(Once Amended) The method of claim 15 and wherein the at least one nozzle is moved relative to the receiver medium with plural recording passes to record an image swath of pixels on a reference raster during each recording pass and ink drop volumes deposited at selected locations during each pass are in response to receiver media type and ink type and printer resolution.

17.(Once Amended) The method of claim 16 and wherein ink drop volumes during each pass are controlled in response to table values which are adjusted with receiver media type and ink type and printer resolution.

18.(Once Amended) The method of claim 17 and wherein job input signals are received corresponding to a selected one of plural recording resolutions, a selected one of plural receiver media types and [optionally] a selected one of plural inks for processing the job and in response to the job inputs a code value is generated from a plurality of selectable code values, the number of selectable code values being substantially less than the number of combinations of plural recording resolutions, plural receiver media types and [optionally] plural inks possible for selection for the job, the code value being used to identify a table of values associated with drop volumes used for printing.

27. (Once Amended) A method of operating an ink jet printer apparatus for printing an image on a receiver medium, the method comprising:

providing a print head having at least one nozzle;

generating a signal related to media type of the receiver medium;

recording image data of an image by depositing at least three different ink drop volumes including no ink drop on the receiver medium at different pixel locations to form dots of different dot size or dot density at different pixel locations; and

wherein in recording image data of a same multitone image data value on different receiver media types, in response to the signal related to media type, the drop volumes deposited on one receiver medium of one receiver media type by the nozzle

are different than the drop volumes deposited on another receiver medium of a second receiver media type by the nozzle and wherein the at least one nozzle is moved relative to the receiver medium with plural recording passes and records an image swath of pixels on a reference raster during at least one of such plural recording passes and ink drop volumes deposited at selected locations during each said at least one pass are in response to receiver media type,[The method of claim 16] and further wherein the at least one nozzle is moved relative to the receiver medium with at least another one of the plural recording passes to record [an] the image swath of pixels on a shifted raster, and wherein a shifted raster represents, for a predetermined printing resolution, a grid pattern of possible pixel locations on the recording medium that are shifted relative to each pixel location on the reference raster by an amount less than the spacing between adjacent pixel locations on the reference raster in the pass direction and by an amount less than the spacing between adjacent pixel locations on the reference raster in a transverse direction to the pass direction.

30. (Once Amended) A method of operating an ink jet printer apparatus for printing an image on a receiver medium, the method comprising:

providing a print head having at least one nozzle;

generating a signal related to media type of the receiver medium;

recording image data of an image by depositing at least three different ink drop volumes including no ink drop on the receiver medium at different pixel locations to form dots of different dot size or dot density at different pixel locations; and

wherein in recording image data of a same multitone image data value on different receiver media types, in response to the signal related to media type, the drop volumes deposited on one receiver medium of one receiver media type by the nozzle are different than the drop volumes deposited on another receiver medium of a second receiver media type by the nozzle[The method of claim 15] and wherein the at least one nozzle is moved relative to the receiver medium during a pass to record an image swath of pixels on a shifted raster and moved into a pass direction on a separate pass to record pixels on a reference raster, and wherein the shifted raster represents for a predetermined printing resolution, a grid pattern of possible pixel locations on the recording medium that are shifted relative to each pixel location on the reference raster by an amount less than the spacing between adjacent pixel locations on the

reference raster in the pass direction and by an amount less than the spacing between adjacent pixel locations on the reference raster in a transverse direction to the pass direction.

33.(Once Amended) A method of operating an ink jet printer apparatus for printing an image on a receiver medium, the method comprising:

providing a print head having at least one nozzle;

generating a signal related to media type of the receiver medium;

recording image data of an image by depositing at least three different ink drop volumes including no ink drop on the receiver medium at different pixel locations to form dots of different dot size or dot density at different pixel locations; and

wherein in recording image data of a same multitone image data value on different receiver media types, in response to the signal related to media type, the drop volumes deposited on one receiver medium of one receiver media type by the nozzle are different than the drop volumes deposited on another receiver medium of a second receiver media type by the nozzle [The method of claim 15] and wherein job input signals are received corresponding to a selected one of plural recording resolutions, a selected one of plural receiver media types and optionally a selected one of plural inks for processing the job and in response to the job inputs a code value is generated from a plurality of selectable code values, the number of selectable code values being substantially less than the number of combinations of plural recording resolutions, plural receiver media types and optionally plural inks possible for selection for the job, the code value being used to identify a table of values associated with drop volumes used for printing.

36.(Once Amended) A method of processing image data for an ink jet print head, the method comprising:

receiving multitone image data representing at least three different gradation tone values including zero density or background;

receiving information relative to receiver media type upon which ink drops are to be deposited;

in response to the information relative to media type, adjusting a parameter associated with drop volumes so that for different receiver media types a

gradation tone value will be printed differently, and wherein for the gradation tone value and one media type a signal is generated for depositing an ink drop on a reference raster but not for depositing an ink drop on a shifted raster and for the gradation tone value and a second media type a signal is generated for depositing an ink drop on a reference raster and a signal is generated for depositing a supplementary ink drop on an adjacent location on a shifted raster, wherein the shifted raster represents, for a predetermined printing resolution, a grid pattern of possible pixel locations on the recording medium that are shifted relative to each pixel location on the reference raster by an amount less than the spacing between adjacent pixel locations on the reference raster in a pass direction and by an amount less than spacing between adjacent pixel locations on the reference raster in a transverse direction to the pass direction.

38.(Once Amended) The method of claim [37] 36 and wherein job input signals are provided corresponding to a selected one of plural recording resolutions, a selected one of plural receiver media types and optionally a selected one of plural inks for processing the job and in response to the job inputs a code value is generated from a plurality of selectable code values, the number of selectable code values being substantially less than the number of combinations of plural recording resolutions, plural receiver media types and optionally plural inks possible for selection for the job, the code value being used to identify a table of values associated with drop volumes used for printing.

41.(Once Amended) A method of processing image data for a print job to be printed by an ink jet print head, the method comprising:

receiving inputs for the job of a selected one of plural recording resolutions, a selected one of plural receiver media types and optionally a selected one of plural inks for use in printing the job;

in response to the inputs generating a code value from a table of a plural number of selectable code values, the number of selectable code values being substantially less than the number of combinations of plural recording resolutions, plural receiver media types and optionally plural inks possible for selection for the job.

42.(Once Amended) The method of claim 41 and wherein the code value represents a coverage factor equivalent for plural combinations in the set plural recording resolutions, plural receiver media types and optionally plural inks possible for use in printing the job.

Add the following the claims:

43. An ink jet printer apparatus for printing an image on a receiver medium comprising:

at least one nozzle connected to a supply of ink;

a controller, responsive to image data representing the image and to a first signal related to receiver media type, for generating a second signal for determining for said nozzle an ink drop volume to be deposited at each of plural pixel locations on the receiver medium by that nozzle, at least some of the second signals determining at least three different drop volumes including a no drop decision;

an actuator associated with said nozzle and responsive to said second signal for controlling said nozzle to deposit at a respective pixel location a respective drop volume to be deposited in accordance with said second signal so that the printer prints at least three different drop volumes including no drops at different pixel locations on the receiver medium to print the image on the receiver medium; and

a communication channel for receiving inputs for a job of a selected one of plural recording resolutions, a selected one of plural receiver media types and optionally a selected one of plural inks for processing the job and the controller, in response to such job inputs, is adapted to generate a third signal representing a first code value from a table of plural number of selectable code values, the number of selectable code values being substantially less than the number of combinations of plural recording resolutions, plural receiver media types and optionally plural inks possible for selection for the job.

44. The inkjet printer apparatus of claim 43 and further wherein either the same communication channel or a separate communication channel is provided for receiving inputs of a fourth signal representing a selection of number of bits per pixel used in printing, a selected number of band passes to be used to print an image swath on a reference raster and optionally a selected number of directions in which

printing is to occur and in response to the third and fourth signals the controller is adapted to generate table values for a pass table.

45. A method of processing image data for a print job to be printed by an ink jet print head, the method comprising:

receiving inputs for the job of a selected one of plural recording resolutions, a selected one of plural receiver media types and a selected one of plural inks for use in printing the job;

in response to the inputs generating a code value from a table of a plural number of selectable code values, the number of selectable code values being substantially less than the number of combinations of plural recording resolutions, plural receiver media types and plural inks possible for selection for the job.

46. A method of operating an ink jet printer apparatus for printing an image on a receiver medium, the method comprising:

providing a print head having at least one nozzle;

generating a signal related to media type of the receiver medium;

recording image data of an image by depositing at least three different ink drop volumes including no ink drop on the receiver medium at different pixel locations to form dots of different dot size or dot density at different pixel locations; and

wherein in recording image data of a same multitone image data value on different receiver media types, in response to the signal related to media type, the drop volumes deposited on one receiver medium of one receiver media type by the nozzle are different than the drop volumes deposited on another receiver medium of a second receiver media type by the nozzle and further wherein job input signals are received corresponding to a selected one of plural recording resolutions, a selected one of plural receiver media types and a selected one of plural inks for processing the job and in response to the job inputs a code value is generated from a plurality of selectable code values, the number of selectable code values being substantially less than the number of combinations of plural recording resolutions, plural receiver media types and plural inks possible for selection for the job, the code value being used to identify a table of values associated with drop volumes used for printing.

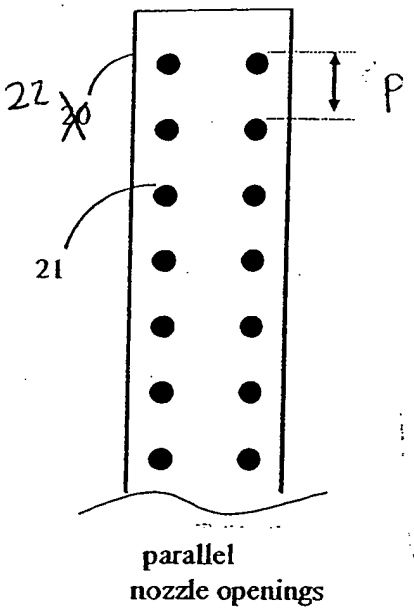


FIG. 5

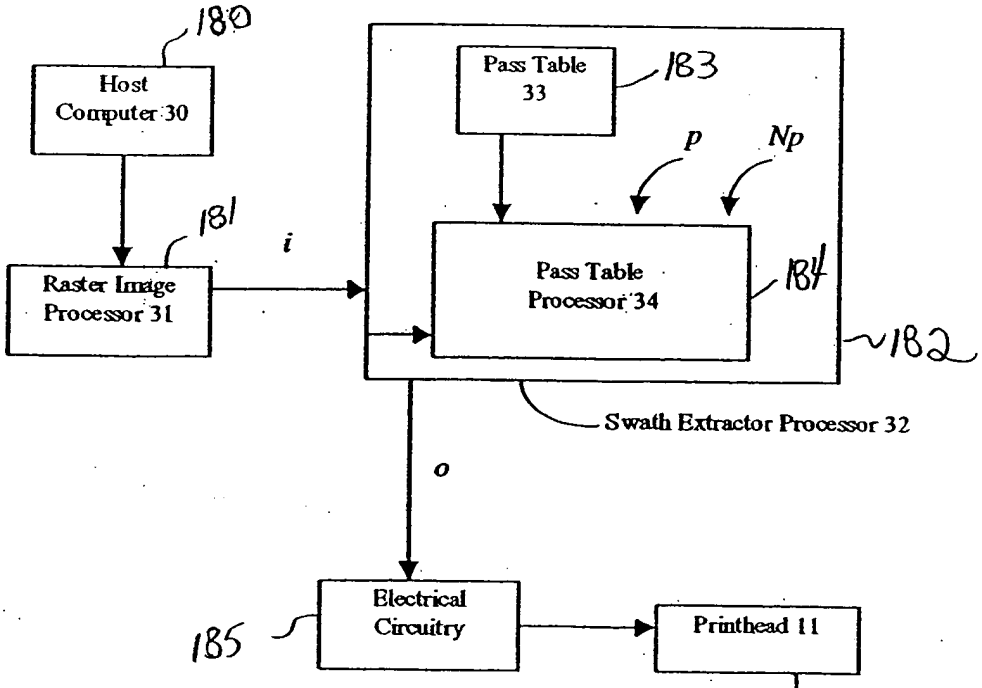


FIG. 7